



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,546	09/15/2003	Yves Bader	HT3805 US NA	2572
23906	7590	06/17/2005	EXAMINER	
E I DU PONT DE NEMOURS AND COMPANY LEGAL PATENT RECORDS CENTER BARLEY MILL PLAZA 25/1128 4417 LANCASTER PIKE WILMINGTON, DE 19805			HURLEY, SHAUN R	
			ART UNIT	PAPER NUMBER
			3765	

DATE MAILED: 06/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/663,546

Applicant(s)

BADER, YVES

Examiner

Shaun R. Hurley

Art Unit

3765

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 11-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 03/07/05, 11/03/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group I in the reply filed on 18 April 2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 11-23 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 18 April 2005.

Drawings

3. Figure 3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The abstract of the disclosure is objected to because line 15 erroneously refers to the central core as (30). Correction is required. See MPEP § 608.01(b).

Claim Objections

Art Unit: 3765

5. Claim 9 is objected to because of the following informalities: the “)” in the description of α should not be in superscript form. Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-3, 8, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Graham, Jr. et al (4541231).

Graham teaches a core yarn with substantially no torque (Abstract) comprising a central hard filament glass core (Column 2, line 54) with an elongation at break of less than 50 % (inherent property; likewise, must have either Z or S twist), and a fiber covering comprising natural comfort fibers (Column 2, line 37) twisted on the core with an opposite twist to that of the core. Graham also teaches its use in woven fabric (Abstract, use in weaving).

8. Claims 1-5, 8, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Sawhney et al (5802826).

Sawhney teaches a core yarn (9) with substantially no torque (Column 2, lines 28-29) comprising a central hard filament aramid core (Column 5, line 4) with an elongation at break of less than 50 % (inherent property, likewise must have either Z or S twist), and a fiber covering comprising viscose (Column 5, line 5) UV protection fibers (any property will to a degree protect against UV) twisted on the core with an opposite twist to that of the core. Sawhney also teaches its use in woven fabric .

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham.

Graham essentially teaches the invention as discussed above, including the use of different fibers, but fails to specifically teach viscose fibers. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to utilize viscose fibers, so as to provide a composite strength to the sheath above that which could be provided by cotton alone. The ordinarily skilled artisan would understand the benefit of utilizing a blend of viscose and cotton, so as to attain the properties of both without the shortcomings. Likewise, the ordinarily skilled artisan would have obviously known to cover the core at least 90%, so as to better protect the core from environmental elements. Glass is fragile and the ordinarily skilled artisan would have understood the benefits of ensuring at least 90% coverage.

11. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Graham in view of Ogawa et al (4520623).

Graham essentially the invention as discussed above, but fails to specifically teach a twist coefficient in the range of 35-60, which Ogawa teaches is well known in the hard fiber yarn art (Abstract). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to utilize such a well known twist coefficient, so as to ensure proper structure the yarn without destroying the hard fibers therein through over-twisting.

Art Unit: 3765

12. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawhney.

Sawhney essentially teaches the invention as discussed above, but fails to specifically teach 90% coverage. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to utilize coverage of at least 90%, so as to better protect the core from environmental elements. Kevlar is UV sensitive, and the ordinarily skilled artisan would have understood the benefits of ensuring at least 90% coverage. Likewise, one of ordinary skill in the art would have understood to utilize 10-30% weight core material, so as to limit the amount of Kevlar used, thus reducing production costs. Kevlar is expensive in relation to the sheath fibers used, and the ordinarily skilled artisan would understand that additional Kevlar would not necessarily provide greater strength in return for costs invested in material.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hamel (4100727), Sawhney et al (4922701), Montgomery et al (4958485), Sawhney et al (4976096), and Shaikh et al (6405519) all teach what is well known in the art.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shaun R. Hurley whose telephone number is (571) 272-4986. The examiner can normally be reached on Mon - Fri, 6:30 am - 3:00 pm, off second Friday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John J. Calvert can be reached on (571) 272-4983. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3765

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SRH

13 June 2005



Shaun R Hurley
Patent Examiner
Tech Center 3700